



Larue Co. Water District #1 Water Quality Report for year 2012

KY0620237

6215 N. L&N Turnpike,
Buffalo, KY. 42716
Meetings: District Office, Buffalo, KY
Meeting Dates and Time: 2 nd Monday of each month 7:00 PM

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Water - Essential for Life

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

Larue County Water District #1 purchases water through six water suppliers. Four water treatment plants supply our water: Green River Valley Water District treats surface water from the Green River and Rio Springs. The source of raw water for the Green River Valley Water District is the Green River and Rio Spring in Hart County. An analysis of the overall susceptibility to contamination of the Green River Valley Water District's water supply indicated that this susceptibility is high. Sources of high potential impact include: Highway 31E and Route 569, underground storage tanks, agricultural land use, domestic water wells and septic systems. This source assessment for GRVWD raw water supply is available through Barren River Area Development District P.O. Box 90005 Bowling Green Ky., 42102 (270) 781-2381 or through David Paige (270) 773 2135.

Hodgenville Water Works treats raw water from two separate surface water intakes, North Fork of the Nolin River and Salem Lake. An analysis of the susceptibility of the water supply to contamination has been completed. Areas of high concern in the protection areas of the Nolin River consist of underground storage tanks, a Superfund site, row crops, bridges and culverts, urban and recreational grasses, waste generators, Tier II hazardous chemical use, and a Kentucky Pollution discharge Elimination System (KPDES) permit. Around Salem Lake areas of high concern include row crops and a bridge and culvert site. The possibility for potential chemical leaks from the underground storage tanks, or hazardous material accidentally spilling into the water source due to a vehicle accident or run-off from the nearby row crops creates a susceptibility ranking of high. Although there are areas of high concern, the susceptibility of the Hodgenville Water Work's supply to contamination indicates that the overall susceptibility is generally moderate. The source water assessment is available for viewing at Lincoln Trail ADD office, 613 College St., Elizabethtown, Kentucky. 42701

Bardstown Municipal Water Department (BMWD) utilizes water from Sympson Lake and the Beech Fork River. These sources are classified as surface water. A source water assessment of the system's susceptibility to potential sources of contamination has been completed. A summary of this plan is available through the Lincoln Trail Area Development District, 613 College St. Rd., Elizabethtown Kentucky, 40601, telephone, (270) 769-2393. It is also available at City Hall upon request. Areas of high concern consist of row crops, bridges, and culverts, urban and recreational grasses. The potential for chemical spills, leaks, or hazardous material accidentally spilling into the water source give these sites the susceptibility ranking of high. However, the overall ranking of the water source is moderate.

Campbellsville Municipal Water System's (CMWS) sources of raw water are Green River Reservoir and City Reservoir in Taylor County. Reservoirs are classified as surface water. Within the critical protection area of the City Reservoir intake there are fifteen potential sources of contamination that are ranked high, ten ranked medium and none ranked low. Areas of concern include bridges and culverts, row crops, underground storage tanks, KPDES permitted discharges and waste generators or transporters. The location of Green River Reservoir water intake and remote area of the watershed make the routine non-point contaminant sources of low concern. An analysis of the overall susceptibility to contamination of the water supply indicated that this susceptibility is generally low. The completed Source Water Plan (SWAP) is available for inspection at the CMWS office located at 110 South Columbia Avenue.

Green-Taylor Water District purchases water from The City of Greensburg, whose water source is raw water drawn from Green River and treated at their water treatment plant. The Green River is classified as surface water. Green River source contamination is rated low, primary concerns come from farming practices, light manufacturing and residential areas. There are eight contaminant sources listed being within Zone II: some row crop fields, sewer line, four users of hazardous chemical, and two UST facilities. The Water Source and Assessment Summary can be reviewed at the Water Treatment Plant located at 102 East Columbia Avenue, Greensburg City Hall, or the Lake Cumberland Area Development Office.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Some or all of these definitions may be found in this report:

- Maximum Contaminant Level (MCL)** - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG)** - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL)** - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG)** - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Below Detection Levels (BDL)** - laboratory analysis indicates that the contaminant is not present.
- Not Applicable (N/A)** - does not apply.
- Parts per million (ppm)** - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb)** - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Parts per trillion (ppt)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- Picocuries per liter (pCi/L)** - a measure of the radioactivity in water.
- Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- Million Fibers per Liter (MFL)** - a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.
- Variations & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.
- Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.

Information About Lead:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected. Our water sources are as follows: A=Green River Valley Water District (GRVWD) B=Hodgenville, C=Bardstown and New Haven, D=Campbellsville, E=Greensburg and Green/Taylor, F=Larue Co. W.D.

	Allowable Levels	Source	Highest Single	Lowest	Violation	Likely Source of Turbidity
			Measurement	Monthly %		
Turbidity (NTU) TT	No more than 1 NTU* Less than 0.3 NTU in of filtered water 95% monthly samples	A= B= C= D= E=	0.1	100	No	Soil runoff
* Representative samples			0.3	100	No	
			0.15	100	No	
			0.32	99	No	
			0.08	100	No	

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Radioactive Contaminants								
Beta photon emitters (mrem/yr)	4	0	C=	4	4 to 4	Feb-10 March-07	No	Decay of natural and man-made deposits
Alpha emitters [4000] (pCi/L)	15	0	A=	0.5	0.2 to 0.5	Oct-07	No	Erosion of natural deposits
			B=	0.2	0.2 to 0.2	07-05	No	
			C=	0.02	0.02 to 0.02	Feb-10	No	
			D=	0.2	0.2 to 0.2	Nov-09	No	
			E=	0.03	0 to 0.03	Oct-12	No	
Combined radium (pCi/L)	5	0	A=	0.9	0.9 to 0.9	Oct-07	No	Erosion of natural deposits
			B=	0.9	0.9 to 0.9	Jul-10	No	
			D=	0.2	0.2 to 0.2	Nov-09	No	
			E=	0.8	0.8 to 0.8	March-12	No	
Uranium (µg/L)	30	0	B=	2.2	2.2 to 2.2	Jul-10	No	Erosion of natural deposits
			C=	0.09	0.09 to 0.09	Feb-10	No	
D=	1.192	1.192 to 1.192	Nov-09	No				

Inorganic Contaminants

Antimony [1074] (ppb)	6	6	A= B= C=	0.2	0.2 to 0.2	Feb-12	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic [1005] (ppb)	10	N/A	A=	0.5	0.5 to 0.5	2012	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
			D=	0.5	0.5 to 0.5	2012	No	
Barium [1010] (ppm)	2	2	A=	0.034	0.034 to 0.034	2012	No	Drilling wastes; metal refineries; erosion of natural deposits
			B=	0.033	0.033 to 0.033	May-12	No	
			C=	0.018	0.018 to 0.018	March-12	No	
			D=	0.15	0.15 to 0.15	Feb-12	No	
E=	0.016	0.016 to 0.016	March-12	No				
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	F=	0.097 (90 th percentile)	0.007 to 0.192	August-12	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	A=	1.06	0.87 to 1.26	Nov-12	No	Water additive which promotes strong teeth
			B=	0.95	0.77 to 1.1	May-12	No	
			C=	0.95	0.82 to 1.07	Sept-12	No	
			D=	0.97	0.8 to 1.22	Oct-12	No	
			E=	0.98	0.98 to 1.09	Dec-12	No	
Lead [1030] (ppb) sites exceeding action level 1	AL = 15	0	F=	2 (90 th percentile)	0 to 0.004	Aug-12	No	Corrosion of household plumbing systems
Nickel (ppm) (US EPA remanded MCL in February 1995.)	N/A	N/A	B=	2.2	2.2 to 2.2	May-12	No	N/A
Nitrate [1040] (ppm)	10	10	A=	1.1	1.1 to 1.1	2012	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
			B=	0.9	0.9 to 0.9	March-12	No	
			C=	1.61	0 to 1.61	March-12	No	
			D=	0.55	0.55 to 0.55	May-12	No	
			E=	0.6	0.6 to 0.6	2012	No	

Synthetic Organic Contaminants including Pesticides and Herbicides

Atrazine [2050] (ppb)	3	3	B= C= D=	0.08 0.14 0.2	0 to 0.29	July-12 2012 2012	No No No	Runoff from herbicide used on row crops
Di(2-ethylhexyl) adipate [2035] (ppb)	400	400	B=	0.33	0 to 0.33	2011	No	Discharge from chemical factories
			A=	0.3	0.3 to 0.3	2012	No	
Simazine [2037] (ppb)	4	4	C= D=	0.016 0.075	0 to 0.075	2012 2010	No No	Herbicide runoff

Disinfectants/Disinfection Byproducts and Precursors

Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	A= B= C= D= E=	1.45 1.52 1.91 1.13 1.42	1.00 to 3.34	N/A	No No No No No	Naturally present in environment.
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.								
Chlorine (ppm)	MRDL = 4	MRDLG = 4	F=	1.73 (highest average)	0.72 to 2.20	N/A	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	A=	47	17 to 84	N/A	No	Byproduct of drinking water disinfection
			B=	53	43 to 62	N/A	No	
			C=	55	20 to 75	N/A	No	
			D=	40	2 to 72	N/A	No	
			E=	38	18 to 64	N/A	No	
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	A=	44	16 to 126	N/A	No	Byproduct of drinking water disinfection
			B=	51	26 to 65	N/A	No	
			C=	42	15 to 58	N/A	No	
			D=	49	0 to 98	N/A	No	
			E=	62	34 to 85	N/A	No	

This report will not be sent to individual customers. However, it will be available at our office.